

Plant and Equipment Expenditures: 1982

NEW plant and equipment expenditures planned by U.S. nonfarm business for 1982 total \$346.4 billion, 7.4 percent more than in 1981, according to the annual survey conducted by BEA in late November and December (table 1 chart 3). Estimated 1981 spending, based on the quarterly survey conducted a month earlier, is \$322.6 billion, 9.1 percent more than in 1980.¹

These data are not adjusted for price change. Spending plans adjusted for price change indicate a 0.5-percent decline in 1982 (table 2). Real spending increased 0.3 percent in 1981, 0.8 percent in 1980, and 7.7 percent in 1979. To estimate real spending, the figures reported by survey respondents are adjusted using price deflators

prepared by BEA based on unpublished data in the national income and product accounts together with respondents' estimates of capital goods price changes in 1981 and 1982. The deflators developed by BEA indicate that prices of capital goods purchased by business in 1981 increased 8.7 percent and will increase 8.0 percent in 1982. Survey respondents estimated somewhat larger price increases—10.9 percent in 1981 and 10.4 percent in 1982 (table 3).² Deflators

calculated by BEA for the 1982 spending plans were extrapolated from 1981 deflators, for each industry separately, using the ratio of the expected 1982 price increases to the 1981 price increase reported by respondents.

The BEA quarterly survey of spending plans conducted in October and November and reported in December indicated an increase in spending from the second half of 1981 to the first half of 1982—about 6 percent in current-dollars and 2 percent in real

Table 1.—Expenditures for New Plant and Equipment by U.S. Nonfarm Business, 1980-82

| | 1980 | 1981 ² | 1982 ³ Billions of dollars | 1980-81 | 1981-82 Percent change |
|---------------------------------------|---------------|-------------------|---|-------------|------------------------------|
| Total nonfarm business | 296.64 | 322.81 | 346.42 | 9.1 | 7.4 |
| Manufacturing | 115.81 | 128.20 | 139.34 | 10.7 | 8.6 |
| Durable goods | 62.91 | 62.94 | 67.81 | 4.8 | 7.7 |
| Primary metals ⁴ | 7.71 | 8.01 | 8.68 | 3.9 | 8.3 |
| Sheet, furnace, steel works | 8.29 | 9.12 | 9.84 | 6.3 | 7.8 |
| Nonferrous metals | 8.11 | 3.45 | 3.16 | -11.1 | -8.9 |
| Fabricated metals | 8.98 | 2.92 | 3.12 | -1.1 | 6.9 |
| Electrical machinery | 8.85 | 10.51 | 12.69 | 9.5 | 20.5 |
| Machinery, except electrical | 11.59 | 13.13 | 14.01 | 13.3 | 6.7 |
| Transportation equipment ⁵ | 18.15 | 13.13 | 20.08 | 5.4 | 4.5 |
| Motor vehicles | 9.05 | 10.72 | 10.73 | 18.4 | .1 |
| Aircraft | 7.09 | 6.51 | 7.08 | -7.8 | 8.1 |
| Stons, clay, and glass | 3.82 | 3.30 | 3.22 | -13.4 | -2.6 |
| Other durables ⁶ | 5.09 | 5.94 | 8.08 | 16.5 | 2.5 |
| Non-durable goods | 52.90 | 65.26 | 71.53 | 14.8 | 9.5 |
| Food including beverage | 7.39 | 8.28 | 9.36 | 12.0 | 13.1 |
| Textiles | 1.82 | 1.81 | 1.69 | -.6 | -6.6 |
| Paper | 6.80 | 6.72 | 6.71 | -1.2 | -.1 |
| Chemicals | 12.60 | 18.75 | 14.26 | 8.2 | -2.7 |
| Petroleum | 20.69 | 24.43 | 29.58 | 27.8 | 21.4 |
| Rubber | 1.73 | 1.83 | 2.04 | 5.7 | 12.5 |
| Other non-durables ⁶ | 6.08 | 6.70 | 7.46 | 10.3 | 11.2 |
| Nonmanufacturing | 173.81 | 194.35 | 207.08 | 8.1 | 6.6 |
| Mining | 13.51 | 13.80 | 18.78 | 24.4 | 35.3 |
| Transportation | 12.05 | 12.07 | 13.39 | 1.1 | 10.9 |
| Railroad | 4.25 | 4.25 | 4.58 | .0 | 7.0 |
| Air | 4.01 | 3.83 | 4.43 | -4.4 | 15.6 |
| Other | 3.82 | 3.96 | 4.38 | 3.6 | 10.7 |
| Public utilities | 36.44 | 37.94 | 39.86 | 7.0 | 5.1 |
| Electric | 28.13 | 28.38 | 31.26 | 4.5 | 10.2 |
| Gas and other | 7.32 | 8.56 | 8.66 | 16.9 | 1.2 |
| Trade and services | 61.79 | 65.21 | 61.16 | 5.6 | -6.7 |
| Communication and other ⁶ | 36.69 | 41.27 | 43.68 | 11.5 | 5.9 |

¹ Preliminary.

1. Planned capital expenditures reported by business in late November and December 1981. Plans have been adjusted for biases.

2. Includes industries not shown separately.

3. Consists of lumber, furniture, instruments, and miscellaneous.

4. Consists of apparel, tobacco, leather, and printing-publishing.

5. Includes construction; social services and membership organizations; and forestry, fisheries, and agricultural services.

1. For estimates of prior years, see "Revised Estimates of New Plant and Equipment Expenditures in the United States, 1947-77," pages 42-49, in the October 1980 Survey of Current Business, and the December 1980 issue, page 44.

The estimate for 1981 is based on actual expenditures in the first three quarters and plans for the fourth quarter. The plans, collected by BEA in October and November, were adjusted for systematic biases by procedures described in the October 1980 Survey.

The 1982 plans also were adjusted for systematic biases. The net effect of the adjustments was to raise manufacturing \$0.08 billion and to raise nonmanufacturing \$7.27 billion; before adjustment, plans were \$139.3 billion for manufacturing and \$199.5 billion for nonmanufacturing. Bias adjustments were computed separately for each major industry and were applied only when plans deviated from actual spending in the same direction for 5 of the last 7 years. In these cases, the adjustment used was the median deviation between actual and planned spending in the last 5 years.

2. Respondents were asked:

"What are your best estimates of average price changes from 1980 to 1981 and expected price changes from 1981 to 1982?"

"a. Prices paid by your company for new construction, machinery, and equipment."

"b. Prices of goods and/or services sold by your company."

Similar information was obtained in the corresponding annual surveys conducted since 1970. The companies' responses on capital goods and sales price changes were weighted by their reported capital expenditures and sales, respectively.

terms. However, the interval between the two surveys was characterized by rapidly deteriorating economic conditions and the latest survey results suggest that first-half plans were revised down.

Industry plans

Manufacturers plan an increase in real spending of 0.9 percent in 1982. Durable goods producers account for the increase. Last year, nondurables producers accounted for all of the 1.9-percent increase. Nonmanufacturing industries plan a 1.4-percent decline, following an 0.6-percent decline last year; an increase in transportation is more than offset by declines in other major industries.

Manufacturing industries plan current-dollar spending totaling \$139.3 billion, 8½ percent more than in 1980, when spending increased 10½ percent. The largest increases are planned by iron and steel, 26 percent; electrical machinery, 21 percent; and aircraft, 18 percent. Increases ranging between 13½ and 11½ percent are planned by petroleum, food-beverage, rubber, and "other nondurables." Other industries, except nonferrous

metals, plan spending about the same as or a little higher than last year. Nonferrous metals plan a 9-percent decrease.

Nonmanufacturing industries plan to spend \$207.1 billion, 6½ percent

more than in 1981. Last year, their spending increased 8 percent. Air transportation, the only major non-manufacturing industry to report a decline last year, plans a 15½-percent increase. Mining firms plan a 12-per-

Table 2.—Real Expenditures for New Plant and Equipment by U.S. Nonfarm Business, 1980-82

| | 1980 | 1981 ^a | 1982 ^b | 1980-81 | 1981-82 |
|-------------------------|--------|-------------------|--------------------------|---------|----------------|
| | | | Billions of 1972 dollars | | Percent change |
| Total nonfarm business | 158.52 | 159.07 | 158.27 | 0.3 | -0.5 |
| Manufacturing | 60.10 | 61.26 | 61.79 | 1.9 | .9 |
| Durable goods | 31.78 | 31.85 | 32.37 | .2 | 1.6 |
| Nondurable goods | 28.32 | 29.40 | 29.42 | 3.8 | 0 |
| Nonmanufacturing | 98.42 | 97.82 | 96.48 | -.6 | -1.4 |
| Mining | 5.25 | 5.64 | 5.43 | 7.3 | -3.6 |
| Transportation | 6.13 | 5.68 | 5.88 | -7.3 | 3.5 |
| Public utilities | 17.47 | 16.95 | 16.32 | -3.0 | -3.7 |
| Trade and services | 47.16 | 46.67 | 46.41 | -1.0 | -.6 |
| Communication and other | 22.42 | 22.88 | 22.45 | 2.1 | -1.9 |

^aPreliminary.

^bPlans reported by business in late November and December 1981 adjusted by BEA for assumed price changes.

Table 3.—Change in Prices of Capital Goods Purchased

[Percent change from preceding year]

| | Reported in Nov.-Dec. 1980 survey | | Reported in Nov.-Dec. 1981 survey | |
|------------------------|-----------------------------------|---------------|-----------------------------------|---------------|
| | Actual 1980 | Expected 1981 | Actual 1981 | Expected 1982 |
| Total nonfarm business | 10.8 | 11.0 | 10.9 | 10.4 |
| Manufacturing | 10.6 | 10.7 | 10.7 | 10.1 |
| Durable goods | 10.4 | 10.5 | 10.3 | 9.7 |
| Nondurable goods | 10.8 | 10.9 | 11.0 | 10.5 |
| Nonmanufacturing | 11.0 | 11.2 | 11.0 | 10.6 |
| Mining | 13.2 | 14.1 | 13.8 | 13.7 |
| Transportation | 11.1 | 10.7 | 10.2 | 10.1 |
| Public utilities | 10.5 | 10.4 | 10.3 | 9.5 |
| Other ¹ | 10.9 | 11.2 | 10.9 | 10.6 |

1. Includes trade; services; and "communication and other" as defined in table 1.

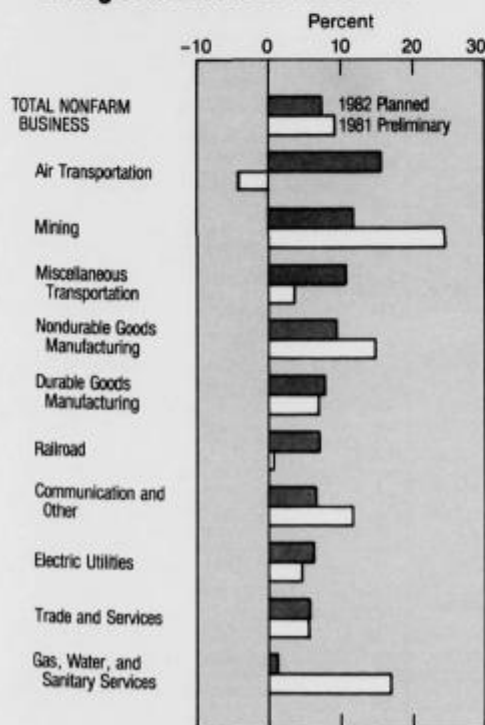
Table 4.—Percent Change in Business Sales¹

| | 1981 | | | 1982 |
|-------------------------------------|-----------------------------|-----------|--------|-----------------------------------|
| | Expected as reported in: | | Actual | Expected as reported in: |
| | Jan. 1981 | Mar. 1981 | | Jan. 1982 |
| | Manufacturing..... | 13.1 | 12.3 | 9.1 |
| Durable goods ¹ | 13.5 | 12.2 | 10.0 | 13.1 |
| Primary metals..... | 11.5 | 10.8 | 4.8 | 12.5 |
| Fabricated metals..... | 13.7 | 11.6 | 7.0 | 11.1 |
| Electrical machinery..... | 14.5 | 10.8 | 8.9 | 10.8 |
| Machinery, except electrical..... | 14.4 | 12.6 | 12.1 | 13.2 |
| Transportation equipment..... | 15.0 | 15.9 | 16.2 | 17.7 |
| Stone, clay, and glass..... | 11.7 | 9.7 | 9.1 | 9.5 |
| Nondurable goods ¹ | 12.6 | 12.4 | 8.3 | 9.8 |
| Food including beverage..... | 10.6 | 9.6 | 5.4 | 9.4 |
| Textiles..... | 8.3 | 9.5 | 10.6 | 7.6 |
| Paper..... | 12.8 | 12.5 | 9.0 | 13.4 |
| Chemicals..... | 13.4 | 13.6 | 9.9 | 12.6 |
| Petroleum..... | 17.4 | 18.1 | 11.4 | 7.4 |
| Rubber..... | 13.1 | 10.9 | -3.0 | 12.1 |
| Trade..... | 10.1 | 8.5 | 11.6 | 9.7 |
| Wholesale..... | 10.7 | 9.6 | 12.8 | 10.9 |
| Retail..... | 9.5 | 7.3 | 10.2 | 8.5 |
| Public utilities..... | 14.8 | 13.9 | 17.3 | 16.0 |

1. Includes industries not shown separately.

Sources: Manufacturing data from Bureau of the Census, Current Industrial Reports, Series M-3, for first 10 months of 1981, and BEA estimates for November and December 1981. Trade data are from Bureau of the Census, Current Business Reports, Monthly Wholesale Trade and Monthly Retail Trade, and BEA estimates for November and December 1981. Public utility figures are estimated by BEA on basis of data collected in the annual business investment surveys.

CHART 3
Changes in Business Investment



cent increase, one-half last year's increase. "Other transportation" plans a 10½-percent increase and railroads, 7 percent. Electric utilities, "communication and other," and trade and services plan increases of about 6 percent. Gas utilities plan little change in spending, after a 17-percent increase last year.

Sales and sales prices

Manufacturers expect their sales to increase 11½ percent in 1982 (table 4). Their sales increased 9 percent in 1981, compared with an expected increase of 13 percent. Trade firms expect an increase of 9½ percent; last year, they had an 11½-percent increase, compared with an expected 10

Table 5.—Change in Prices of Products and Services Sold by Manufacturing and Utility Companies

[Percent change from preceding year]

| | Reported in Nov.- Dec. 1980 survey | | Reported in Nov.- Dec. 1981 survey | |
|------------------------|---------------------------------------|------------------|---------------------------------------|------------------|
| | Actual 1980 | Expected 1981 | Actual 1981 | Expected 1982 |
| Manufacturing..... | 11.7 | 10.1 | 9.2 | 7.7 |
| Durable goods..... | 8.9 | 9.1 | 8.1 | 7.4 |
| Non-durable goods..... | 14.5 | 11.1 | 10.4 | 8.0 |
| Public utilities..... | 18.9 | 14.6 | 13.7 | 14.8 |

percent. Public utilities expect a 16-percent increase in 1982; they had a 17½-percent increase in 1981, compared with an expected 15 percent.

Manufacturers expect the prices of the goods and services they sell to increase 7½ percent this year, less than

the 9 percent they reported for last year; they had expected 10 percent last year (table 5). Public utilities expect a 15-percent increase, compared with 13½ percent last year; they had expected 14½ percent last year.